



705 Refocus Search

# STIC Search Report

## EIC 3600

STIC Database Tracking Number: 114718

TO: Elaine Gort  
Location: cpk5 7B21  
Art Unit : 3627  
Monday, February 23, 2004

Case Serial Number: 09599712

From: Sylvia Keys  
Location: EIC 3600  
PK5-Suite 804  
Phone: 305-5782

[sylvia.keys@uspto.gov](mailto:sylvia.keys@uspto.gov)

### Search Notes

Dear Examiner Gort,

Please read through the results.

If you have any questions, please do not hesitate to contact me.

Sylvia

Reviewed  
All  
2/04  
[Signature]



# STIC Search Results Feedback Form

## EIC 3600

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Karen Lehman, EIC 3600 Team Leader  
306-5783, PK5- Suite 804

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 3620 (optional)

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC3600 PK5 Suite 804



(31) (50)

# EIC2100 COMMERCIAL DATABASE SEARCH REQUEST

Staff Use Only

## Complete 705 Template Search Requested

☒ RUSH - SPE signature required: Michael Puff for BO.

Access DB#

114718

Business Methods Case: 705/ 413

Log Number

Write in 705 subclass(es) to search required files for 705 cases or cases cross referenced in 705.

Requester's Full Name: Elaine Gort Examiner #: 77459 Date: 2/19/04

Art Unit: 3627 Phone Number 703/308-6391 Serial Number: 91599 712

Bldg & Room #: PK5 7B21

Results Format Preferred: PAPER

If more than one search is submitted, please prioritize searches in order of need.

### Provide the PALM Bib page or the following:

Title of Invention: see attached bib sheet

Inventors (provide full names): see bib sheet

Earliest Priority Filing Date: 6/22/00

### Requested attachments:

- If possible, provide the cover sheet, the IDS, examples, or relevant citations, authors, etc, if known.
- Please attach copies of the parts of this case that help explain or are most pertinent to this search. Examples are: abstract, background, summary, claim(s) [not all of the claims].

**See particularly claims** 13

### The claimed or apparent novelty of the invention is:

A fuel dispensing system where a fuel dispenser has a sensor that detects and identifies a vehicle and fills the vehicle, but does not print out a receipt. A separately located receipt/accounting station that senses & identifies the vehicle and provides accounting information (such as a receipt).

### This search should focus on:

(Also include keywords or synonyms)

Above

Special Instructions or Other Comments

Thanks Elaine M.A.

File 344:Chinese Patents Abs Aug 1985-2003/Nov  
          (c) 2003 European Patent Office  
 File 347:JAPIO Oct 1976-2003/Oct(Updated 040202)  
          (c) 2004 JPO & JAPIO  
 File 350:Derwent WPIX 1963-2004/UD,UM &UP=200412  
          (c) 2004 Thomson Derwent  
 File 348:EUROPEAN PATENTS 1978-2004/Feb W03  
          (c) 2004 European Patent Office  
 File 349:PCT FULLTEXT 1979-2002/UB=20040219,UT=20040212  
          (c) 2004 WIPO/Univentio  
 ?ds

Set	Items	Description
S1	54	AU='DICKSON T':AU='DICKSON TIMOTHY R'
S2	13	S1 AND FUEL?
S3	12	S2 AND DISPENS?

3/3,K/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

015593876 \*\*Image available\*\*  
WPI Acc No: 2003-656031/200362  
Related WPI Acc No: 1999-253467; 1999-255039; 1999-263672; 1999-263673;  
1999-277052; 2000-564401; 2003-208812  
XRPX Acc No: N03-522471

**In-vehicle ordering system for use in fuel dispensing station, has user interface located within vehicle cabin to place order to quick serve restaurant**

Patent Assignee: GILBARCO INC (GILB-N)  
Inventor: **DICKSON T E** ; MARION K O  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6574603	B1	20030603	US 9760066	P	19970926	200362 B
			US 9834969	A	19980304	
			US 98119905	A	19980721	

Priority Applications (No Type Date): US 9760066 P 19970926; US 9834969 A 19980304; US 98119905 A 19980721

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6574603	B1	46	G06K-007/00		Provisional application US 9760066 CIP of application US 9834969

**In-vehicle ordering system for use in fuel dispensing station, has user interface located within vehicle cabin to place order to quick serve restaurant**

Inventor: **DICKSON T E** ...

Abstract (Basic):

... For placing order to quick serve restaurant associated with  
**fuel dispensing stations...**

...allows all the occupants of the vehicles to place orders, without increasing congestion at the **fuel dispenser** .

...

...The figure shows a schematic view of the **fueling** and retail environment...

... fuel dispenser (18

...Title Terms: **FUEL** ;

3/3,K/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

015028946 \*\*Image available\*\*  
WPI Acc No: 2003-089463/200308  
XRPX Acc No: N03-070503

**Fuel dispenser misoperation detection method involves comparing amount of fuel alleged to be dispensed and reference calculated by analyzing fuel extracted from storage tank, during transaction**

Patent Assignee: GILBARCO INC (GILB-N)  
Inventor: **DICKSON T E**  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6463389	B1	20021008	US 2000495024	A	20000131	200308 B

Priority Applications (No Type Date): US 2000495024 A 20000131

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6463389 B1 15 G01F-007/00

Fuel dispenser misoperation detection method involves comparing amount of fuel alleged to be dispensed and reference calculated by analyzing fuel extracted from storage tank, during transaction

Inventor: DICKSON T E

Abstract (Basic):

... An amount of fuel alleged to be dispensed on a fuel dispenser , is compared with a reference calculated by analyzing the fuel extracted from a storage tank, during fueling transaction. An alarm is generated, if the fuel amount is within a confidence interval estimates or if the volumes are not comparable.

... 1) Fuel dispenser ;  
(...

...3) Computer readable medium storing fuel dispenser misoperation detection program...

...For detecting misoperation of fuel dispenser (claimed) which is used to deliver fuel such as gasoline or diesel fuel to vehicle...

...Effectively detects fraud within fuel dispensing transactions and provides an appropriate alert to rectify the situation...

...The figure shows the flow diagram illustrating the fuel dispenser misoperation detection procedure

Title Terms: FUEL ;

3/3,K/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014918862 \*\*Image available\*\*

WPI Acc No: 2002-739569/200280

XRPX Acc No: N02-582598

Fraud detection method in fuel dispenser , involves comparing amount of fuel to be dispensed with actual amount of fuel dispensed , based on which alarm indicating difference between actual amount and determined amount is output

Patent Assignee: GILBARCO INC (GILB-N)

Inventor: DICKSON T E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6438452	B1	20020820	US 2000494902	A	20000131	200280 B

Priority Applications (No Type Date): US 2000494902 A 20000131

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6438452 B1 15 G06F-017/00

Fraud detection method in fuel dispenser , involves comparing amount of fuel to be dispensed with actual amount of fuel dispensed , based on which alarm indicating difference between actual amount and determined amount is output

Inventor: DICKSON T E

Abstract (Basic):

... The amount of fuel to be dispensed on a fuel dispenser is determined and compared with the amount of fuel actually

dispensed during fuel transaction with respect to fuel dispensing time. If the determined amount of fuel is less than the actual amount, an alarm indicating the difference between the determined amount...

... 2) Fuel dispenser ; and...

...For detecting fraud in fuel dispenser (claimed...

...Detects fraud during fuel transaction, reliably...

...Title Terms: FUEL ;

3/3,K/4 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014843881 \*\*Image available\*\*

WPI Acc No: 2002-664587/200271

XRPX Acc No: N02-525643

Fraud detection method in fuel dispenser , involves estimating probability of difference of reported and actual fuel amount, when reported fuel amount is within confidence interval of reference

Patent Assignee: GILBARCO INC (GILB-N)

Inventor: DICKSON T E

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6421616	B1	20020716	US 2000495022	A	20000131	200271 B

Priority Applications (No Type Date): US 2000495022 A 20000131

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6421616	B1	15	G01F-001/00		

Fraud detection method in fuel dispenser , involves estimating probability of difference of reported and actual fuel amount, when reported fuel amount is within confidence interval of reference

Inventor: DICKSON T E

Abstract (Basic):

... The amount of fuel alleged to be dispensed on a fuel dispenser , is reported and compared to a reference related to a known fraudulent information. The probability that the reported amount differs from the actual amount of fuel dispensed , is estimated, when the reported amount is within a confidence interval of the reference.

... 1) Fuel dispenser ;  
(...

...2) Central station computer to detect fraud in fueling transaction...

...For detecting fraudulent activity in dispensing fuel into vehicle...

...Consumers confidence is increased and goodwill of the companies responsible for selling fuel is protected from illegal activities, as the fraud involved in fuel dispensing is detected correctly

...Title Terms: FUEL ;

3/3,K/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

014552717 \*\*Image available\*\*

WPI Acc No: 2002-373420/200241

XRPX Acc No: N02-291858

**Fuel dispensing system for vehicles, has transaction account delivery station which is located remotely from fuel dispenser and is configured to optionally deliver transaction account to customer**

Patent Assignee: MARCONI COMMERCE SYSTEMS INC (MAON )

Inventor: **DICKSON T E**

Number of Countries: 026 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1167278	A1	20020102	EP 2001305428	A	20010622	200241 B

Priority Applications (No Type Date): US 2000599712 A 20000622

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1167278	A1	E	20	B67D-005/24	
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT  
LI LT LU LV MC MK NL PT RO SE SI TR

**Fuel dispensing system for vehicles, has transaction account delivery station which is located remotely from fuel dispenser and is configured to optionally deliver transaction account to customer**

Inventor: **DICKSON T E**

Abstract (Basic):

... A **fuel dispenser** (12) is in communication with a system controller (14). A transaction account delivery station (22) which is in communication with the system controller, is located remotely from the **fuel dispenser** and is configured to optionally deliver a transaction account to a customer.

... For delivering **fuel** to vehicles of customers...

...Permits a transaction account to be delivered at a separate location to the **dispenser**. Reduces the number of receipt printers or other transaction account delivery equipment required...

...The figure shows a schematic diagram of **fuel dispensers** and receipt station with a system controller located in the receipt station...

... **Fuel dispenser** (12

Title Terms: **FUEL** ;

3/3,K/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WITM

(c) 2004 Thomson Derwent. All rts. reserv.

014162735 \*\*Image available\*\*

WPI Acc No: 2001-646963/200174

XRPX Acc No: N01-483325

**Counterfeit detection method in fuel dispenser , involves determining if displayed amount of fuel exceeds the amount of fuel actually dispensed**

Patent Assignee: DICKSON T E (DICK-I)

Inventor: **DICKSON T E**

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6213172	B1	20010410	US 2000494903	A	20000131	200174 B

Priority Applications (No Type Date): US 2000494903 A 20000131

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 6213172	B1		15	B65B-001/04	
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**Counterfeit detection method in fuel dispenser , involves determining**

if displayed amount of fuel exceeds the amount of fuel actually dispensed

Inventor: DICKSON T E

Abstract (Basic):

... The amount of fuel alleged to be dispensed in the fuel dispenser is displayed. The displayed amount is compared with reference derived from vapor recovery system. It...

...interval of reference, to estimate a likelihood that the displayed amount exceeds the amount of fuel actually dispensed .

... a) Method of detecting counterfeit in fueling environment...

...b) Fuel dispenser configured to detect counterfeit in fueling transaction...

...c) Central station computer configured to detect counterfeit in fueling transaction...

...For detecting counterfeit fuel dispenser .  
...

...By comparing vapor recovery rates between fuel dispensers , a hint is provided to indicate that one or more dispensers have been modified

...Title Terms: FUEL ;

3/3,K/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

(c) 2004 Thomson Derwent. All rts. reserv.

013392463 \*\*Image available\*\*

WPI Acc No: 2000-564401/200052

Related WPI Acc No: 1999-277052; 2001-210010; 2001-624236; 2002-024699;  
2003-656031

AREX Acc No: N00-416911

Fuel dispensing system for fueling transactions, has dispenser controller that receives secret code from customer and perform fueling only after verifying voice print of customer with voice print stored in database

Patent Assignee: MARCONI COMMERCE SYSTEMS INC (MAON )

Inventor: BLAKE A G; DICKSON T E ; KAEHLER D L; MCSPADDEN J S

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6089284	A	20000718	US 9760066	P	19970926	200052 B
			US 98160114	A	19980924	

Priority Applications (No Type Date): US 9760066 P 19970926; US 98160114 A 19980924

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 6089284 A 71 B65B-001/30 Provisional application US 9760066

Fuel dispensing system for fueling transactions, has dispenser controller that receives secret code from customer and perform fueling only after verifying voice print of customer with voice print stored in database

...Inventor: DICKSON T E

Abstract (Basic):

... The dispenser controller preconditions fuel dispenser (18) on receiving indication from remote communication unit of customer. Fueling is performed after receiving secret code from customer using keypad and verifying voice print of...

... The **dispenser** controller preconditions **dispenser** by initializing pump electronics for **fuel** delivery and preselecting **fuel** type, **fuel** grade, payment method, card type, amount type, account location. An audio processing system compares voice...

...database for authentication of transaction. An INDEPENDENT CLAIM is also included for enhancement method of **fuel** transaction...

...For providing dual stage preconditioning and authentication of **fueling** transaction...

...Financial security of **fuel** transaction is ensured since **fuel** is supplied only after verifying authenticity of user by comparing voice print with voice print...

...The figure shows the schematic representation of **fueling** and retail environment...

... **Fuel dispenser** (18  
Title Terms: **FUEL** ;

3/3,K/8 (Item 8 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
(c) 2004 Thomson Derwent. All rts. reserv.

012470944 \*\*Image available\*\*  
WPI Acc No: 1999-277052/199923  
Related WPI Acc No: 1999-253467; 1999-255039; 1999-263672; 1999-263673;  
2000-564401; 2003-208812; 2003-656031  
XRPX Acc No: N99-207713

**Forecourt ordering system fuel dispensers**  
Patent Assignee: MARCONI COMMERCE SYSTEMS INC (MAON ); GILBARCO LTD  
(GILB-N); GILBARCO INC (GILB-N)  
Inventor: DICKSON T E ; MARION K O; TEPERANOVA S N  
Number of Countries: 033 Number of Offices: 007  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9916700	A1	19990403	WO 98GB2919	A	19980928	199923 B
AU 9891796	A	19990423	AU 9891796	A	19980928	199935
EP 1017614	A1	20000712	EP 98944131	A	19980928	200036
			WO 98GB2919	A	19980928	
AU 735470	B	20010712	AU 9891796	A	19980928	200147
EP 1017614	B1	20010905	EP 98944131	A	19980928	200152
			WO 98GB2919	A	19980928	
DE 63001388	E	20011011	DE 63001388	A	19980928	200152
			EP 98944131	A	19980928	
			WO 98GB2919	A	19980928	
US 6422464	B1	20020723	US 9760066	P	19970926	200254
			US 9824742	A	19980217	
			US 2000595255	A	20000615	

Priority Applications (No Type Date): US 98119905 A 19980721; US 9760066 P 19970926; US 9834969 A 19980304; US 9824742 A 19980217; US 2000595255 A 20000615

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
WO 9916700 A1 E 48 B67D-005/08  
Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW  
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW  
AU 9891796 A Based on patent WO 9916700

AU 735470	B	20010712	AU 9891796	A	19980928	200147
EP 1017614	B1	20010905	EP 98944131	A	19980928	200152
			WO 98GB2919	A	19980928	

Priority Applications (No Type Date): US 9760066 P 19970926; US 97966237 A 19971107; US 98159910 A 19980924; US 9824742 A 19980217; US 9834969 A 19980304; US 98119905 A 19980721

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5890520	A		18	B65B-001/30	Provisional application US 9760066
US 6026868	A				Provisional application US 9760066
					Div ex application US 97966237
US 6098879	A			G07B-015/02	Provisional application US 9760066
AU 735470	B			B67D-005/08	Previous Publ. patent AU 9891796
					Based on patent WO 9916700
EP 1017614	B1 E			B67D-005/08	Based on patent WO 9916700
					Designated States (Regional): DE FR GB IT

**Forecourt fuel dispenser with transponder distinction**  
 Inventor: **DICKSON T E** ...

Abstract (Basic):

... The **dispenser** includes communications electronics, e.g. an interrogator, operatively associated with a control system and adapted ...

...system and communications electronics determine if the first transmitter has moved with respect to the **dispenser** .

... interface with the vehicle's control system to disable the vehicle and prevent movement. The **dispenser** also includes a card reader or a cash acceptor and receipt printer...

...Enhances security, safety and functionality of forecourt fuel **dispenser** .

...

...The drawing shows a schematic side view of the dispenser having multiple antenna arrangements for providing directional interrogation fields...

... fuel dispenser (10...

...mid dispenser transmit/receive antennae (251,253

...Title Terms: **FUEL** ;

3/3,K/10 (Item 1 from file: 348)  
 DIALUS(R)File 315:EUROPEAN PATENT  
 (c) 2004 European Patent Office. All rts. reserv.

01372012

**A fuel dispensing system providing a transaction account to a customer**  
**Zapfeinrichtung mit Rechnungsstellung fur Kraftstoff**  
**Systeme de distribution de carburant fournissant un recu**  
 PATENT ASSIGNEE:

Marconi Commerce Systems Inc., (3013620), 7300 W. Friendly Avenue, P.O. Box 22087, Greensboro, NC 27420-2087, (US), (Applicant designated States: all)

INVENTOR:

**Dickson, Timothy E.** , 1211 Hounslow Drive, Greensboro, NC 27410, (US)  
 LEGAL REPRESENTATIVE:

Fitchett, Stuart Paul et al (83742), Saunders & Dolleymore European Patent Attorneys 9 Rickmansworth Road, Watford WD18 0JU, (GB)

PATENT (CC, No, Kind, Date): EP 1167278 A1 020102 (Basic)

APPLICATION (CC, No, Date): EP 2001305428 010622;

PRIORITY (CC, No, Date): US 599712 000622

presents said token...

...14 or 15 wherein said customer identification means comprises a biometric sensor located at said **fuel dispensing** station, whereby an indicia unique to each customer is generated by said customer presenting physical...

...facial features, or genetic samples.

20. The system of claim 14 wherein the of the **fuel dispensing** station means for uniquely identifying a customer comprises a sensor configured to detect the presence...

...customer identification indicia via operative communication with a transponder located on the customer vehicle,  
each **fuel dispenser** station (12) further comprising a display (13) whereby **fuel** transaction information is dynamically displayed to the customer during and following **fuel dispensing**, said transaction information selected from the group consisting of **fuel** amount, **fuel** price, **fuel** grade, transaction total and advertising messages  
wherein the transaction account delivery station means for uniquely...

3/3,K/11 (Item 2 from file: 348)

DIALOG(R)File 348:EUROPEAN PATENTS

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01040026

A FORECOURT ORDERING SYSTEM FOR FUEL AND SERVICES AT A FILLING STATION  
BESTELLSYSTEM FÜR KRAFTSTOFF UND KUNDENDIENST AN EINER TANKSTELLE  
SYSTEME DE PRISE DE COMMANDE EN AVANT-COUR POUR CARBURANT ET SERVICES DANS  
UNE STATION-SERVICE

PATENT ASSIGNEE:

Marconi Commerce Systems Inc., (570622), 7300 West Friendly Avenue P.O.  
Box 2007, Greensboro, NC 27410, (US),  
Inventors: Timothy Earle Dickson, Kenneth Orvin Marion

INVENTOR:

DICKSON, Timothy, Earle, 1211 Hounslow Drive, Greensboro, NC 27410,  
(US)

MARION, Kenneth, Orvin, 4702 Horseshoe Lane, Guilford, NC 27410, (US)

LEGAL REPRESENTATIVE:

Fitchett, Stuart Paul (83741), Marconi Intellectual Property, Marrable  
House, The Vineyards, Gt. Baddow, Chelmsford, Essex CM2 7QS, (GB)

PATENT (CC, No, Kind, Date): EP 1017614 A1 000712 (Basic)

EP 1017614 B1 010905

WO 9916700 990408

APPLICATION (CC, No, Date): EP 9811001 980301; WO 9907001 990301

PUBLICATION (CC, No, Date): EP 1017614 A1 000712; WO 9916700 990408

FIG. 21

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: B67D-005/08

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200136	1108
CLAIMS B	(German)	200136	1005
CLAIMS B	(French)	200136	1343
SPEC B	(English)	200136	6267
Total word count - document A			0
Total word count - document B			9723
Total word count - documents A + B			9723

A FORECOURT ORDERING SYSTEM FOR FUEL AND SERVICES AT A FILLING STATION

said remote communications unit is proximate said **fuel dispenser** ;

ii) associate a customer order placed at the order entry user interface with the remote...

...unit of the customer who placed the order at the order entry interface of the **fuel dispenser** and provide said output indicating the customer who placed the order is at the order...

3/3,K/12 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
(c) 2004 WIPO/Univentio. All rts. reserv.

00485348 \*\*Image available\*\*  
**A FORECOURT ORDERING SYSTEM FOR FUEL AND SERVICES AT A FILLING STATION**  
**SYSTEME DE PRISE DE COMMANDE EN AVANT-COUR POUR CARBURANT ET SERVICES DANS**  
**UNE STATION-SERVICE**

Patent Applicant/Assignee:

GILBARCO LIMITED,

Inventor(s):

**DICKSON Timothy Earle ,**  
MARION Kenneth Orvin

Patent and Priority Information (Country, Number, Date):

Patent: WO 9916700 A1 19990408

Application: WO 98GB2919 19980928 (PCT/WO GB9802919)

Priority Application: US 9760066 19970926; US 9834969 19980304; US  
98119905 19980721

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GD GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV  
MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG  
UZ VN YU ZW GH GM KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE  
CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN  
GW ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 7956

**A FORECOURT ORDERING SYSTEM FOR FUEL AND SERVICES AT A FILLING STATION**

Inventor(s):

DICKSON Timothy Earle ...

Fulltext Availability:

Detailed Description

Claims

English Abstract

...a remote communications unit associated with the customer. An order receipt position apart from the **fuel dispenser** is provided and includes a second remote communications electronics (58) adapted to communicate with the...

...receipt location. An intermediate locating position (208) located along the path of travel between the **fuel dispenser** and the order receipt position may also be provided.

Detailed Description

**A FORECOURT ORDERING SYSTEM FOR FUEL AND SERVICES AT A FILLING STATION**  
Background of the Invention

The present invention relates generally to a forecourt ordering system **fuel dispensers** and, more particularly, to **fuel dispensers** and systems capable of communicating with various types of transponders and

File 344:Chinese Patents Abs Aug 1985-2003/Nov  
(c) 2003 European Patent Office  
File 347:JAPIO Oct 1976-2003/Oct(Updated 040202)  
(c) 2004 JPO & JAPIO  
File 350:Derwent WPIX 1963-2004/UD,UM &UP=200412  
(c) 2004 Thomson Derwent

?ds

Set	Items	Description
S1	75	(FUEL OR PETROLEUM OR PETROL) () (DISPENS? OR FILL? ? OR FILLING? OR DISTRIBUT?) (3N) (SENSOR OR SENSORS OR SENSING OR DETECTOR? OR SIGNAL? ?)
S2	18	(ROBOTIC? OR AUTOMATE?) (3N) (FUEL OR PETROLEUM OR PETROL) () (DISPENS? OR FILL? ? OR FILLING? OR DISTRIBUT?)
S3	57844	(DETECT? OR IDENTIF?) (3N) (AUTO? ? OR AUTOMOBILE? OR AUTOMOTIVE? OR VEHICLE? OR TRUCK? ? OR MOTOR? () VEHICLE? OR LORRY OR LORRIES OR CAR? ? OR FLEET? OR (AUTO OR MOTOR) () CAR? OR AUTOCAR? OR MOTORCAR? OR VAN? ?)
S4	2034290	(REMOTE OR DISTANT? OR SEPARATE? OR LOCATION? OR APART OR - FAR() OFF OR FAR() AWAY OR OFF() SITE? OR OFFSITE? OR REMOVED)
S5	0	S5(5N) (RECEIPT? OR PRINT() OUT? OR ACCOUNTING?)
S6	32	AU=(DICKSON, T? OR DICKSON T ?)
S7	93	S1 OR S2
S8	57864	S3 OR ((FILL OR FILLS OR GASES OR FUELS) () UP) (3N) (AUTO? ? - OR AUTOMOBILE? OR AUTOMOTIVE? OR VEHICLE? OR TRUCK? ? OR MOTOR? () VEHICLE? OR LORRY OR LORRIES OR CAR? ? OR FLEET? OR (AUTO OR MOTOR) () CAR? OR AUTOCAR? OR MOTORCAR? OR VAN)
S9	4	S7 AND S8
S10	24	S7 AND S4
S11	0	S10 AND (RECEIPT? OR PRINT() OUT? OR ACCOUNTING?)
S12	22	S10 NOT S9
S13	15	S12 AND IC=(B67D OR G06F)
S14	0	S6 AND S1

9/5/1 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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013824022 \*\*Image available\*\*  
WPI Acc No: 2001-308234/200132  
Related WPI Acc No: 2004-059196  
XRPX Acc No: N01-220574

Financial transaction card e.g. credit card, debit card, has filter  
associated with transparent areas to provide sufficient opacity to light  
used by card sensors in automated card processing equipment

Patent Assignee: PERFECT PLASTIC PRINTING CORP (PERF-N)

Inventor: KIEKHAEFER J H

Number of Countries: 019 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200125872	A2	20010412	WO 2000US27004	A	20000929	200132 B
US 6290137	B1	20010918	US 99411359	A	19991001	200157
US 6296188	B1	20011002	US 99411359	A	19991001	200160
			US 99449251	A	19991124	

Priority Applications (No Type Date): US 99449251 A 19991124; US 99411359 A 19991001

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 200125872	A2	E	49	G06F-000/00	
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Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU  
MC NL PT SE

US 6290137	B1	G06K-019/00
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US 6296188	B1	G06K-019/00	CIP of application US 99411359
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Abstract (Basic): WO 200125872 A2

NOVELTY - A financial transaction card (20) such as credit card, debit card, has planar material sheet with upper and lower surfaces, bounded by continuous peripheral edge (28). A filter (32) is associated with areas (30) that are minimally transparent or translucent to human view. The filter offers sufficient opacity to light used by card sensors in automated card processing equipment, to make the **card detectable**.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for financial transaction card manufacturing method.

USE - E.g. credit card, debit card, ATM card used in **automated fuel dispenser** and other point-of-sale (POS) card processing equipment.

ADVANTAGE - The card being relatively unique in the market place, imparts status to the card user, compared to the other opaque card users. Potentially attracts user who preferably selects such a card over competitive opaque cards, and thereby provides income to the institution as a result of card usage. The light scattering materials provide a mechanism for reducing near infrared light transmittance and if desired, an ultraviolet light absorbing material is added to prevent degradation of light filtering material.

DESCRIPTION OF DRAWING(S) - The figure shows the plan view of financial transaction card.

Financial transaction card (20)

Peripheral edge (28)

Transparent area (30)

Filter (32)

pp; 49 DwgNo 3/8

Title Terms: FINANCIAL; TRANSACTION; CARD; CREDIT; CARD; DEBIT; CARD; FILTER; ASSOCIATE; TRANSPARENT; AREA; SUFFICIENT; OPAQUE; LIGHT; CARD; SENSE; AUTOMATIC; CARD; PROCESS; EQUIPMENT

Derwent Class: T01; T04; T05

International Patent Class (Main): G06F-000/00; G06K-019/00

File Segment: EPI

9/5/2 (Item 2 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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011670273 \*\*Image available\*\*  
WPI Acc No: 1998-087182/199808  
XRPX Acc No: N98-069193

**Monitoring system for delivery of fuel to road vehicles - has sensors determining which fuel dispensing nozzle is used, and reads information from vehicle for identification, and nozzles are coupled to processing unit which is connected to pump controller**  
Patent Assignee: ORDICAM RECH & DEV (ORDI-N); ORDICAM RECH & DEV SA (ORDI-N)

Inventor: LEGOUX J; MICHOT G  
Number of Countries: 023 Number of Patents: 006  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9800817	A1	19980108	WO 97FR1101	A	19970619	199808 B
FR 2750521	A1	19980102	FR 968201	A	19960628	199809
EP 907938	A1	19990414	EP 97930554	A	19970619	199919
			WO 97FR1101	A	19970619	
EP 907938	B1	20010822	EP 97930554	A	19970619	200149
			WO 97FR1101	A	19970619	
DE 69706304	E	20010927	DE 606304	A	19970619	200164
			EP 97930554	A	19970619	
			WO 97FR1101	A	19970619	
US 6598792	B1	20030729	WO 97FR1101	A	19970619	200354
			US 2000529229	A	20000817	

Priority Applications (No Type Date): FR 968201 A 19960628

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 9800817	A1	F	22 G07F-013/02	
				Designated States (National): BR CA JP RU US
				Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
FR 2750521	A1		G07F-007/10	
EP 907938	A1	F	G07F-013/02	Based on patent WO 9800817
				Designated States (Regional): BE CH DE GB IT LI
EP 907938	B1	F	G07F-013/02	Based on patent WO 9800817
				Designated States (Regional): BE CH DE GB IT LI
DE 69706304	E		G07F-013/02	Based on patent EP 907938
				Based on patent WO 9800817
US 6598792	B1		G06F-017/60	Based on patent WO 9800817

Abstract (Basic): WO 9800817 A

The system includes a receiving unit (UR) at the station, associated with a computer (5) managing the dispensing nozzles (2,3,4). A terminal (T) is associated with a pump controller (6), and is linked to the receiving unit. An identifying module is associated with each of the dispensing nozzles, and also with each vehicle.

A system is provided for reading the module which is provided near to the fuel tank inlet on the **vehicle**, in order to **identify** the **vehicle** and provide other data. A transmitter- receiver is provided to send this information to the receiving unit. The system may be used in conjunction with stored reference information, in order to validate the use of the fuel pump by a particular vehicle.

USE - Enables authentication and monitoring of fuel supply to vehicles by road transport companies.

Dwg.1/2

Title Terms: MONITOR; SYSTEM; DELIVER; FUEL; ROAD; VEHICLE; SENSE;  
DETERMINE; FUEL; DISPENSE; NOZZLE; READ; INFORMATION; VEHICLE; IDENTIFY;  
NOZZLE; COUPLE; PROCESS; UNIT; CONNECT; PUMP; CONTROL

Derwent Class: Q39; W02; W06; X25  
International Patent Class (Main): G06F-017/60; G07F-007/10; G07F-013/02  
International Patent Class (Additional): B67D-005/14; B67D-005/33;  
G06K-019/07; G07F-015/00  
File Segment: EPI; EngPI

9/5/3 (Item 3 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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009787594 \*\*Image available\*\*  
WPI Acc No: 1994-067447/199409  
XRPX Acc No: N94-052805

**Leakage detector for fuel dispensing petrol pump with master and satellite dispenser - periodically activates pump when in non-dispensing mode and monitors output of fuel flow meter to detect flow**

Patent Assignee: GILBARCO INC (GILB-N)  
Inventor: GROSE J S  
Number of Countries: 017 Number of Patents: 010  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 584924	A1	19940302	EP 93305545	A	19930715	199409 B
AU 9342048	A	19940127	AU 9342048	A	19930720	199410
NO 9302602	A	19940124	NO 932602	A	19930719	199411
US 5325706	A	19940705	US 92917762	A	19920721	199426
NZ 248098	A	19950328	NZ 248098	A	19930707	199519
AU 667551	B	19960328	AU 9342048	A	19930720	199622
EP 584924	B1	19960508	EP 93305545	A	19930715	199623
DE 69302543	E	19960613	DE 602543	A	19930715	199629
			EP 93305545	A	19930715	
ES 2088230	T3	19960801	EP 93305545	A	19930715	199637
NO 304223	B1	19981116	NO 932602	A	19930719	199901

Priority Applications (No Type Date): US 92917762 A 19920721

Cited Patents: EP 351061; US 3940020; US 4658986; US 5072621

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 584924	A1	E	6	B67D-005/32	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI NL SE					
US 5325706	A		6	G01M-003/28	
AU 667551	B			B67D-005/32	Previous Publ. patent AU 9342048
EP 584924	B1	E	7	B67D-005/32	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI NL SE					
DE 69302543	E			B67D-005/32	Based on patent EP 584924
ES 2088230	T3			B67D-005/32	Based on patent EP 584924
NO 304223	B1			B67D-005/08	Previous Publ. patent NO 9302602
AU 9342048	A			B67D-005/32	
NO 9302602	A			B65D-090/50	
NZ 248098	A			B67D-005/32	

Abstract (Basic): EP 584924 A

The fuel dispenser includes master and satellite dispensers and a leakage detection system. A fuel reservoir (22) and a pump (24) feed a first leg of piping. The master dispenser (30) has an outlet hose (38) with a user-controlled switch (40). This activates the pump and feeds fuel to both the master and satellite (30) dispensers.

The fuel flows via a meter (28) in the master dispenser. The leak detection system periodically activates the pump when it is in a non-dispensing state. The meter's output is monitored to detect a fuel flow indicating a leak condition.

USE/ADVANTAGE - Eg for fuelling lorry having fuel tanks located on both sides of vehicle. Provides leak detection for both master and satellite dispensing units.

Dwg.1/1

Title Terms: LEAK; DETECT; FUEL; DISPENSE; GASOLINE; PUMP; MASTER;  
SATELLITE; DISPENSE; PERIOD; ACTIVATE; PUMP; NON; DISPENSE; MODE; MONITOR  
; OUTPUT; FUEL; FLOW; METER; DETECT; FLOW  
Derwent Class: Q39; S02; X25  
International Patent Class (Main): B65D-090/50; B67D-005/08; B67D-005/32;  
G01M-003/28  
International Patent Class (Additional): B67D-005/16; B67D-005/377;  
B67D-005/44; B67D-005/50; B67D-005/60; F17D-005/02; G01M-003/00;  
G08B-021/00  
File Segment: EPI; EngPI

9/5/4 (Item 4 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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001292485

WPI Acc No: 1975-H6398W/197530

**Automated dispensing appts. for motor fuel - for operation with credit  
cards activates dispensing mechanism if card data are satisfactory**

Patent Assignee: ATLANTIC RICHFIELD CO (ATLF )  
Number of Countries: 002 Number of Patents: 002  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
GB 1400654	A	19750723				197530 B
CA 997841	A	19760928				197642

Priority Applications (No Type Date): US 72256748 A 19720525

Abstract (Basic): GB 1400654 A

The appts. includes a receiver for examining the **card** and **identifying** data on the **card**, and producing appropriate **signals**, a **petrol dispensing** mechanism, and a data bank. The card receiver returns the card to the customer after examination and produces a 'card removed' signal upon the card being taken from the appts. and, if the read data is satisfactory, the appts. is rendered operative. The petrol pump produces a signal representing the value of fuel dispensed, which is fed to the data bank together with signals representing the data **identifying** the **card** and customer etc. The petrol pump installation may e.g. include a number of pumps, with the control circuitry of the appts. then including a pump selector system.

Title Terms: AUTOMATIC; DISPENSE; APPARATUS; MOTOR; FUEL; OPERATE; CREDIT;  
CARD; ACTIVATE; DISPENSE; MECHANISM; CARD; DATA; SATISFACTORY  
Derwent Class: Q39; T05  
International Patent Class (Additional): B67D-005/14; G07F-007/02  
File Segment: EPI; EngPI

13/5/1 (Item 1 from file: 347)  
DIALOG(R)File 347:JAPIO  
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03470899 \*\*Image available\*\*  
FUEL FILLING DEVICE

PUB. NO.: 03-133799 [JP 3133799 A]  
PUBLISHED: June 06, 1991 (19910606)  
INVENTOR(s): OKADA KAZUNORI  
APPLICANT(s): TOKICO LTD [000305] (A Japanese Company or Corporation), JP  
(Japan)  
APPL. NO.: 01-274694 [JP 89274694]  
FILED: October 20, 1989 (19891020)  
INTL CLASS: [5] B67D-005/32 ; B67D-005/24  
JAPIO CLASS: 24.1 (CHEMICAL ENGINEERING -- Fluid Transportation); 29.4  
(PRECISION INSTRUMENTS -- Business Machines); 45.3  
(INFORMATION PROCESSING -- Input Output Units)  
JAPIO KEYWORD:R131 (INFORMATION PROCESSING -- Microcomputers &  
Microprocessors)  
JOURNAL: Section: M, Section No. 1153, Vol. 15, No. 346, Pg. 29,  
September 03, 1991 (19910903)

#### ABSTRACT

PURPOSE: To prevent a fuel purchase price of this time from being added to a fuel purchase price which was fed last time by a method wherein the discharge of a fuel liquid from a filling nozzle is stopped from the moment when a **fuel filling completion signal** was input to the moment when a **fuel filling possible signal** becomes impossible to be input.

CONSTITUTION: When a filling nozzle is placed correctly in a nozzle storage section 9 in order to complete fuel filling, a nozzle switch 10 stops the output of a nozzle signal. Then, an abnormality detecting circuit 113 for a POS terminal 101, in which the **fuel filling stop signal**, **fuel filling** quantity and metering machine number are stored, outputs these data to a POS control circuit 108, and at the same time, outputs a **fuel filling prohibiting signal** to a fixed type metering machine 1 which has output the **fuel filling stop signal**. By doing this, to a forcible stop circuit 15 for the fixed type metering machine 1, the **fuel filling prohibiting signal** is input, and therefore, even when a filling nozzle 8 is **removed** from the nozzle storage section 9 after this moment, fuel filling is impossible.

13/5/2 (Item 1 from file: 350)  
DIALOG(R)File 350:Derwent WPIX  
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015770705 \*\*Image available\*\*  
WPI Acc No: 2003-832907/200377  
Related WPI Acc No: 2002-061623  
XRPX Acc No: N03-665861

**Fuel dispenser has control system that provides automated teller functions to user using account information read from card inserted into card reader**

Patent Assignee: MCSPADDEN J S (MCSP-I); TERRANOVA S N (TERR-I)  
Inventor: MCSPADDEN J S; TERRANOVA S N  
Number of Countries: 001 Number of Patents: 001  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030205619	A1	20031106	US 2001779822	A	20010208	200377 B
			US 2003446031	A	20030527	

Priority Applications (No Type Date): US 2001779822 A 20010208; US

2003446031 A 20030527

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
US 20030205619 A1 22 G06F-007/08 Cont of application US 2001779822  
Abstract (Basic): US 20030205619 A1

NOVELTY - A control system (22) controls fuel delivery system that delivers fuel to vehicle, and user interface (12) that includes card reader (30), displays (40,42) and key pads (44,46). The control system provides automated teller functions to user using account information read from card inserted into the card reader, such that the user performs **remote** banking transaction during fueling transaction.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) fuel dispensing system; and
- (2) energy dispenser.

USE - **Fuel dispenser** with **automated** teller functions for facilitating **remote** banking transactions of user through financial network.

ADVANTAGE - Provides a customer the opportunity to conduct **remote** banking transaction in association with dispenser transaction, thereby attracting more customers to the fuel dispensing station.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of the fuel dispenser.

fuel dispenser (10)  
user interface (12)  
control system (22)  
card reader (30)  
cash acceptor (32)  
alphanumeric display (40)  
graphics display (42)  
soft keypad (44)  
hard keypad (46)  
pp; 22 DwgNo 1/15

Title Terms: FUEL; DISPENSE; CONTROL; SYSTEM; AUTOMATIC; TELLER; FUNCTION;

USER; ACCOUNT; INFORMATION; READ; CARD; INSERT; CARD; READ

Derwent Class: T05; X25

International Patent Class (Main): G06F-007/08

File Segment: EPI

13/5/3 (Item 2 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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015199036 \*\*Image available\*\*

WPI Acc No: 2003-259570/200326

XRPX Acc No: N03-205767

**Control unit for electrical system at retail fuel dispenser , comprises current sensors in the supply phases to the pump motor, means for peak lopping, comparison to reference and supply tripping**

Patent Assignee: CHAREF M (CHAR-I); TON A (TONA-I)

Inventor: CHAREF M; TON A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
FR 2828026	A1	20030131	FR 200110029	A	20010726	200326 B

Priority Applications (No Type Date): FR 200110029 A 20010726

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes  
FR 2828026 A1 13 H02H-007/09

Abstract (Basic): FR 2828026 A1

NOVELTY - Fuel is stored in a tank (2) and pumped (4) to a terminal (8) with distribution to vehicles through a pipe (9) and pistol (10).

Electricity is supplied through circuit breakers (11,14) and monitored by an electronic control unit (19). The control unit has current sensors, typically Hall type with peak lopping and the signals are compared to reference values related to load and used where necessary and in conjunction with timing relays to trip the supply

USE - To control electrical system at retail fuel dispenser

ADVANTAGE - The electronic control system does not use electromechanical relays and does not therefore need an expensive anti-explosion cabinet or **remote** siting

DESCRIPTION OF DRAWING(S) - The drawing shows the retail fuel dispenser

Tank (2)

Pump (4)

Terminal (8)

Fuel pipe (9)

Fuel pistol (10)

Circuit breakers (11,14)

Electronic control unit (19)

pp; 13 DwgNo 1/2

Title Terms: CONTROL; UNIT; ELECTRIC; SYSTEM; RETAIL; FUEL; DISPENSE;  
COMPRISE; CURRENT; SENSE; SUPPLY; PHASE; PUMP; MOTOR; PEAK; LOP; COMPARE;  
REFERENCE; SUPPLY; TRIP

Derwent Class: Q39; T06; V06; X13; X25

International Patent Class (Main): H02H-007/09

International Patent Class (Additional): B67D-005/04 ; B67D-005/44 ;  
H02P-003/18

File Segment: EPI; EngPI

13/5/4 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014432969 \*\*Image available\*\*

WPI Acc No: 2002-253672/200230

XRFX Acc No: N02-195779

**Light monitoring system for automated transaction machine, has sensors which detect light level of area adjacent to automated transaction machine based on which monitoring unit adjusts light level**

Patent Assignee: DIEBOLD INC (DIEB-N)

Inventor: GRABOWSKI D P; HOSKINSON J; MANNELLA L

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6305602	B1	20011023	US 9767010	P	19971201	200230 B
			US 98198078	A	19981123	

Priority Applications (No Type Date): US 9767010 P 19971201; US 98198078 A 19981123

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6305602	B1	15	G06F-017/60	Provisional application US 9767010

Abstract (Basic): US 6305602 B1

NOVELTY - A light level sensors of **remote** units (22,24,26) sense the light level in an area adjacent to automated transaction machine (12). A **remote** unit transmits a wireless signal to a controller (30) when the sensed light level falls below a threshold value. An indicator of the controller provides an indication of sensed condition to **remote** monitoring units based on which light level is adjusted.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for light monitoring system operation method.

USE - For automated transaction machines e.g. automated teller machine, **automated** ticketing machine, **automated fuel dispensing** machine, night depositories, machines for enabling use of items for a

fee such as airport luggage carts or rental cars and automated gaming machines.

ADVANTAGE - As the light level is monitored, appropriate actions for improving the light levels are done efficiently and accurately.

DESCRIPTION OF DRAWING(S) - The figure shows a schematic view of light monitoring system.

Automated transaction machine (12)

Remote units (22,24,26)

Controller (30)

pp; 15 DwgNo 1/4

Title Terms: LIGHT; MONITOR; SYSTEM; AUTOMATIC; TRANSACTION; MACHINE; SENSE  
; DETECT; LIGHT; LEVEL; AREA; ADJACENT; AUTOMATIC; TRANSACTION; MACHINE;  
BASED; MONITOR; UNIT; ADJUST; LIGHT; LEVEL

Derwent Class: T01; T04; T05; W02; W05

International Patent Class (Main): G06F-017/60

International Patent Class (Additional): G06K-007/00

File Segment: EPI

13/5/5 (Item 4 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014417203 \*\*Image available\*\*

WPI Acc No: 2002-237906/200229

Related WPI Acc No: 2000-013093; 2001-407567

XRPX Acc No: N02-183173

Remote communication arbitration system using tag location with tag  
or host interaction record uses transponder in fuel dispensing  
environment includes arbitration between competing tags by proximity

Patent Assignee: LEATHERMAN R D (LEAT-I)

Inventor: LEATHERMAN R D

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20010034565	A1	20011025	US 9864575	A	19980422	200229 B
			US 2001798266	A	20010302	

Priority Applications (No Type Date): US 9864575 A 19980422; US 2001798266  
A 20010302

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

US 20010034565 A1 23 G06F-019/00 Div ex application US 9864575

Abstract (Basic): US 20010034565 A1

NOVELTY - Remote communication arbitration unit using an RFID tag  
location system using tag (100) or host interaction record comprises  
of a communication system using transponder between fuel dispensers  
(200) and tags, in either key-fob or card format, storing sequence of  
data records relating to attributes of interactions between dispensers  
and tags

DETAILED DESCRIPTION - The records may be stored on the tag or at a  
remote location, such as the dispenser or a central site controller  
or other network (300). Stored records may contain the ID of the  
dispenser, the tag and attributes of the received signal. Fuel  
dispenser provides arbitration between tags on a proximity basis. A  
database is used to store previous tag/dispenser interaction data. The  
tags, POS device and network can be adapted to provide encrypted  
communications.

INDEPENDENT CLAIMS are included for :-

1. A fuel dispenser.
2. Fuel dispensing system.
3. The method of providing arbitration of remote communication devices.

USE - Used to provide arbitration between multiple transponder tags  
in a fuel-dispensing environment.

ADVANTAGE - Provides effective arbitration between POS devices and multiple tags in a dispensing environment where one or more tags in close proximity to one or more dispensers will communicate on a proximity basis and avoid cross talk.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic of a service station constructed and implementing a preferred embodiment of the present invention.

Transponder tag (100)

Fuel dispenser (POS) (200)

Network (300)

pp; 23 DwgNo 1/11

Title Terms: REMOTE ; COMMUNICATE; ARBITER; SYSTEM; TAG; LOCATE; TAG; HOST ; INTERACT; RECORD; TRANSPONDER; FUEL; DISPENSE; ENVIRONMENT; ARBITER; COMPETE; TAG; PROXIMITY

Derwent Class: T01; T05

International Patent Class (Main): G06F-019/00

File Segment: EPI

13/5/6 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014204002 \*\*Image available\*\*

WPI Acc No: 2002-024699/200203

Related WPI Acc No: 2000-564401; 2000-655376; 2001-210010; 2001-624236

XRFX Acc No: N02-019043

Fuel dispenser for vehicles, analyzes signal including signature pulses to determine whether signature pulse stream is similar to that stored in memory

Patent Assignee: MARCONI COMMERCE SYSTEMS INC (MAON )

Inventor: MYERS H M; RONCHETTI J J; WATKINS R O

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6296148	B1	20011002	US 99282897	A	19990331	200203 B
			US 2000563828	A	20000503	

Priority Applications (No Type Date): US 99282897 A 19990331; US 2000563828 A 20000503

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6296148	B1	25	B67D-005/00		Div ex application US 99282897
					Div ex patent US 6109477

Abstract (Basic): US 6296148 B1

NOVELTY - A meter measures the volume or flow rate of the fuel passing through a flow line. A signal generator (410) connected to the flow line or the meter, generates a signal including signature pulses to be identified. A signal analyzer analyzes the signal, to determine whether the signature pulse stream is similar to an expected signature pulse stream stored in a memory.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for fuel dispensing system.

USE - For dispensing fuel to vehicles.

ADVANTAGE - The tamper activity during fuel dispensing operation is prevented, by determining whether the signature to be identified is similar to the expected signature stored in memory. Effective off-site monitoring of the fuel operation is enabled.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the pulse generator with encoder.

Signal generator (410)

pp; 25 DwgNo 4A/15

Title Terms: FUEL; DISPENSE; VEHICLE; ANALYSE; SIGNAL; SIGNATURE; PULSE; DETERMINE; SIGNATURE; PULSE; STREAM; SIMILAR; STORAGE; MEMORY

Derwent Class: Q39; U22; X22; X25  
International Patent Class (Main): B67D-005/00  
File Segment: EPI; EngPI

13/5/7 (Item 6 from file: 350)  
DIALOG(R) File 350: Derwent WPIX  
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013446602 \*\*Image available\*\*  
WPI Acc No: 2000-618545/200059  
Related WPI Acc No: 2001-315828  
XRPX Acc No: N00-458383

Remote controlled automated fuel dispensing system in service station, uses robotic actuator for refueling based on positioned relationship of fuel inlet actuator and nozzle determined by vision system

Patent Assignee: TOKHEIM CORP (TOKH-N)  
Inventor: CHRISTMAN G; GOGGIN W; CHRISTMAN G L  
Number of Countries: 023 Number of Patents: 005  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200037355	A1	20000629	WO 99US30169	A	19991217	200059 B
FR 2787417	A1	20000623	FR 9916215	A	19991222	200059
EP 1194364	A1	20020410	EP 99967405	A	19991217	200232
			WO 99US30169	A	19991217	
US 6390151	B1	20020521	US 98218516	A	19981222	200239
MX 2001006444	A1	20010901	MX 20016444	A	20010622	200239

Priority Applications (No Type Date): US 98218516 A 19981222

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200037355	A1	E	70	B67D-005/00	
Designated States (National): BR CA DE ES GB MX					
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE					
FR 2787417	A1			B65D-005/02	
EP 1194364	A1	E		B67D-005/04	Based on patent WO 200037355
Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE					
US 6390151	B1			B67D-005/00	
MX 2001006444	A1			B67D-005/00	

Abstract (Basic): WO 200037355 A1

NOVELTY - A remote control system (20) controls site controllers of fuel dispenser (14) via common link (16). The robotic actuator of dispenser is controlled by remote system based on fuel request from the site controllers. The position relationship of the robotic actuator to vehicle fuel inlet and nozzle is determined by vision system to control fuel dispensing.

DETAILED DESCRIPTION - The control system connected to the site controllers via network such as internet, processes transaction information for billing, based on user i/p. The site controller includes common device for connecting customer with required web merchant for e-commerce during refueling.

USE - For fuel dispensing in service station. Also for other transactions such as on-line shipping for ordering in restaurants.

ADVANTAGE - The chit of customer from vehicle for refueling is eliminated, by using hydraulically actuated robotic actuator. The remote system functions in multi-tasking environment and hence handles multiple request simultaneously.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the fuel dispensing system.

Fuel dispenser (14)

Common link (16)

pp; 70 DwgNo 1/6  
 Title Terms: **REMOTE** ; CONTROL; AUTOMATIC; FUEL; DISPENSE; SYSTEM; SERVICE;  
 STATION; ROBOT; ACTUATE; BASED; POSITION; RELATED; FUEL; INLET; ACTUATE;  
 NOZZLE; DETERMINE; VISION; SYSTEM  
 Derwent Class: Q39; T01; T05; X22; X25  
 International Patent Class (Main): B65D-005/02; **B67D-005/00** ; **B67D-005/04**  
 International Patent Class (Additional): B65D-005/08; **B67D-005/14**  
 File Segment: EPI; EngPI

13/5/8 (Item 7 from file: 350)  
 DIALOG(R)File 350:Derwent WPIX  
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012239912 \*\*Image available\*\*  
 WPI Acc No: 1999-046020/199904  
 XRPX Acc No: N99-033522

Automated petrol filling station operating method - in which  
 payment is received from customer and compared with amount of fuel  
 delivered to determine amount of change dispensed  
 Patent Assignee: WILLIAMS RETAIL SOLUTIONS INC GARY (WILL-N); GARY-WILLIAMS  
 ENERGY CORP (GARY-N)

Inventor: BRUSKOTTER T P; KUROWSKI M; SWAPP E M  
 Number of Countries: 083 Number of Patents: 005  
 Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9855952	A1	19981210	WO 98US11160	A	19980603	199904 B
AU 9877132	A	19981221	AU 9877132	A	19980603	199919
US 5895457	A	19990420	US 97868247	A	19970603	199923
			US 97946304	A	19971007	
EP 1008082	A1	20000614	EP 98925111	A	19980603	200033
			WO 98US11160	A	19980603	
AU 746144	B	20020418	AU 9877132	A	19980603	200238

Priority Applications (No Type Date): US 97946304 A 19971007; US 97868247 A  
 19970603

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

WO 9855952 A1 E 34 G06F-017/60

Designated States (National): AL AM AT AU AZ BA BB BG BR BY CA CH CN CU  
 CZ DE DK EE ES FI GB GE GH GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR  
 LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM  
 TR TT UA UG US UZ VN YU ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR  
 IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW

AU 9877132 A Based on patent WO 9855952

US 5895457 A G06F-017/60 CIP of application US 97868247

EP 1008082 A1 E G06F-017/60 Based on patent WO 9855952

Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
 LU MC NL PT SE

AU 746144 B G06F-017/60 Previous Publ. patent AU 9877132  
 Based on patent WO 9855952

Abstract (Basic): WO 9855952 A

The filling station operating method involves using a network of  
 filling stations (16) that report to a host computer. Each filling  
 station (16) has a number of fuel pump systems (22) and a change  
 dispenser system (24).

Upon completion of a fueling transaction, a code is provided to a  
 customer at a fuel pump system (22). The customer can enter the code to  
 retrieve cash at the change dispenser (24), or can use the code for  
 credit towards subsequent fuel purchase within the network.

USE - Automated filling station with change dispenser, for  
 accommodating needs for all types of customers e.g. cash customers by

providing change in cash form.

ADVANTAGE - Facilitates **remote** operation and payment in forms including cash payment.

Dwg.2/6

Title Terms: AUTOMATIC; GASOLINE; FILL; STATION; OPERATE; METHOD; PAY; RECEIVE; CUSTOMER; COMPARE; AMOUNT; FUEL; DELIVER; DETERMINE; AMOUNT; CHANGE; DISPENSE

Derwent Class: T01; T05; W01

International Patent Class (Main): **G06F-017/60**

International Patent Class (Additional): G07F-007/02; G07F-007/04

File Segment: EPI

13/5/9 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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012198637 \*\*Image available\*\*

WPI Acc No: 1999-004743/199901

XRPX Acc No: N99-003996

**Oil supply apparatus for filling tanker, carrier - has controller recording fuel filling data on number card inserted into card reader cum writer on receiving fuel filling completion signal**

Patent Assignee: TATSUNO MECHATRONICS KK (TATS-N)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10278998	A	19981020	JP 9799671	A	19970401	199901 B

Priority Applications (No Type Date): JP 9799671 A 19970401

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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JP 10278998	A		6	B67D-005/14	
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Abstract (Basic): JP 10278998 A

The apparatus has a card reader cum writer (13) provided in a rack (1) to receive the card number signal of a number card (22). A controller (24) receives the hatch number signal of a tanker hatch card (21) inserted into a detector (8), provided in a loading arm (2) and controls the refuelling. The controller, on receiving a **fuel filling completion signal**, records the **fuel filling** on the number card inserted into the card reader cum writer.

ADVANTAGE - Eliminates use of **separate** computer in office. Facilitates filling require type of fuel in different hatches. Enables safe operation. Ensures refuelling of correct quantity.

Dwg.1/4

Title Terms: OIL; SUPPLY; APPARATUS; FILL; TANKER; CARRY; CONTROL; RECORD; FUEL; FILL; DATA; NUMBER; CARD; INSERT; CARD; READ; WRITING; RECEIVE;

FUEL; FILL; COMPLETE; SIGNAL

Derwent Class: Q39; X22; X25

International Patent Class (Main): **B67D-005/14**

File Segment: EPI; EngPI

13/5/10 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011110483 \*\*Image available\*\*

WPI Acc No: 1997-088408/199709

XRPX Acc No: N97-072690

**Robotic fuel dispensing device for road vehicles - incorporates filler nozzle and tank filling connection and on filling side has docking location with central through passage**

Patent Assignee: MERCEDES-BENZ AG (DAIM ); DAIMLERCHRYSLER AG (DAIM )

Inventor: FISCHER A; KREMER A; MUELLER A; SCHMID R; STEINKAEMPER R  
Number of Countries: 006 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
DE 19532775	C1	19970130	DE 1032775	A	19950905	199709 B
EP 787614	A2	19970806	EP 96112327	A	19960731	199736
US 5725033	A	19980310	US 96706560	A	19960905	199817
EP 787614	B1	20001122	EP 96112327	A	19960731	200061

Priority Applications (No Type Date): DE 1032775 A 19950905

Cited Patents: No-SR.Pub

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DE 19532775	C1		9	B60K-015/05	
EP 787614	A2	G	10	B60K-015/04	
Designated States (Regional): FR GB IT NL					
US 5725033	A		9	B65B-001/04	
EP 787614	B1	G		B60K-015/04	
Designated States (Regional): FR GB IT NL					

Abstract (Basic): DE 19532775 C

The docking **location** with an upper section is rotatable around the symmetry axis for opening and closure of a tank filler socket. The filler gun or nozzle with its outlet side end can be docked in it, forming a positive connection of the filler gun and the docking **location**.

Radially movable positive engagement components (23) are fitted on one of the docking partners (12,13), and are operated hydraulically. The positive engagement components (17) of the other docking partner are rigidly formed, and in them the movable positive engagement components are securable in an axially locking position.

USE/ADVANTAGE - Robot fuel dispenser for vehicles is functionally secure and allows hindrance-free docking of the filler gun in the filling connection of the vehicle fuel tank at all times.

Dwg.1/4

Title Terms: ROBOT; FUEL; DISPENSE; DEVICE; ROAD; VEHICLE; INCORPORATE; FILL; NOZZLE; TANK; FILL; CONNECT; FILL; SIDE; DOCK; LOCATE; CENTRAL; THROUGH; PASSAGE

Derwent Class: Q13; Q17; Q31; Q39

International Patent Class (Main): B60K-015/04; B60K-015/05; B65B-001/04

International Patent Class (Additional): B60S-005/02; **B67D-005/37**

File Segment: EngPI

**13/5/11 (Item 10 from file: 350)**

DIALOG(R)File 350:Derwent WPIX

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011065078 \*\*Image available\*\*

WPI Acc No: 1997-043003/199704

XRPX Acc No: N97-035696

**Automatic refuelling of vehicle at retail petrol outlet - determining position and orientation of vehicle, moving fuel dispenser adjacent to expected inlet location, determining exact location, and repositioning dispenser**

Patent Assignee: SHELL OIL CO (SHEL )

Inventor: LOEN A E; MUSIL D I; RAMSEY W D; WEST A; WILLIAMS O R

Number of Countries: 022 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9639351	A1	19961212	WO 96US7858	A	19960529	199704 B
AU 9659376	A	19961224	AU 9659376	A	19960529	199715
US 5628351	A	19970513	US 95461280	A	19950605	199725
EP 830306	A1	19980325	EP 96916707	A	19960529	199816
			WO 96US7858	A	19960529	

AU 698599	B	19981105	AU 9659376	A	19960529	199905
JP 11506715	W	19990615	WO 96US7858	A	19960529	199934
			JP 97500786	A	19960529	
EP 830306	B1	19990818	EP 96916707	A	19960529	199937
			WO 96US7858	A	19960529	
DE 69603855	E	19990923	DE 603855	A	19960529	199945
			EP 96916707	A	19960529	
			WO 96US7858	A	19960529	
ES 2137698	T3	19991216	EP 96916707	A	19960529	200006

Priority Applications (No Type Date): US 95461280 A 19950605

Cited Patents: 00 47685800; 05 38350000; 09 40339100; 9406031

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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WO 9639351	A1	E	18	B67D-005/08	
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Designated States (National): AU CA JP

Designated States (Regional): AT BE CH DE DK ES FI FR GB GR IE IT LU MC  
NL PT SE

ES 2137698	T3		B67D-005/08	Based on patent EP 830306
AU 9659376	A		B67D-005/08	Based on patent WO 9639351

US 5628351	A	7	B65B-001/04	
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EP 830306	A1	E	B67D-005/08	Based on patent WO 9639351
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI NL SE

AU 698599	B		B67D-005/08	Previous Publ. patent AU 9659376
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Based on patent WO 9639351

JP 11506715	W	22	B67D-005/04	Based on patent WO 9639351
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EP 830306	B1	E	B67D-005/08	Based on patent WO 9639351
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Designated States (Regional): AT BE CH DE DK ES FR GB GR IT LI NL SE

DE 69603855	E		B67D-005/08	Based on patent EP 830306
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Based on patent WO 9639351

Abstract (Basic): WO 9639351 A

The automatic refuelling method provides vehicle (107) with RF transponder indicating vehicle fuel inlet position when vehicle is at refuelling **location**. The position and orientation of the vehicle is determined with its fuel inlet expected **location**.

A fuel dispenser (108) is moved adjacent to the determined expectant **location**. A sensor is located on the fuel dispenser which determines the **location** of the fuel inlet w.r.t. itself. The fuel dispenser is repositioned based on the sensor signal. The vehicle is refuelled.

ADVANTAGE - Significant modifications are not required to vehicle. Appts. is relatively simple and inexpensive. Precise vehicle positioning is not required. Determination of fuel dispenser position by driver is not required.

Dwg.1/1

Title Terms: AUTOMATIC; REFUELLING; VEHICLE; RETAIL; GASOLINE; OUTLET;

DETERMINE; POSITION; ORIENT; VEHICLE; MOVE; FUEL; DISPENSE; ADJACENT;

INLET; LOCATE; DETERMINE; EXACT; LOCATE; REPOSITION; DISPENSE

Derwent Class: Q31; Q39; X22; X25

International Patent Class (Main): B65B-001/04; B67D-005/04 ; B67D-005/08

International Patent Class (Additional): B67D-005/04

File Segment: EPI; EngPI

13/5/12 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009855562 \*\*Image available\*\*

WPI Acc No: 1994-135418/199416

XRPX Acc No: N94-106450

**Abnormal condition detector system for fuel dispensing facility - detects type and location of fault and produces printed instructions**

for operator to follow.

Patent Assignee: EMCO WHEATON INC (EMCO )  
Inventor: TOTH L W; WILSON R D A  
Number of Countries: 045 Number of Patents: 002  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 9407792	A1	19940414	WO 93US8842	A	19930917	199416 B
AU 9349293	A	19940426	AU 9349293	A	19930917	199432

Priority Applications (No Type Date): US 92955336 A 19921001  
Cited Patents: FR 2604807; US 4630754; US 4774658; WO 8403488  
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9407792	A1		26	B67D-005/32	
Designated States (National): AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU LV MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN					
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
AU 9349293	A			B67D-005/32	Based on patent WO 9407792

Abstract (Basic): WO 9407792 A

The abnormal condition detector system includes a detector for finding abnormal conditions in a fuel tank, fuel dispenser, and fuel line of a fuel dispensing facility. Several electronically stored operator instruction messages include narrative descriptions of operator action when an abnormal condition occurs. A stored instruction is selected when a signal indicating condition type and **location** is received.

The selected instruction is printed along with abnormal condition **location** information. An operator can then read the printed instruction. The type of abnormal conditions includes several alarm conditions and several trouble conditions. Information on the **location** of the dispensing facility is also printed.

ADVANTAGE - Suitable for inexperienced operators. Quick. Simple. Improved safety. Reduced risk of environmental damage.

Dwg.3/5

Title Terms: ABNORMAL; CONDITION; DETECT; SYSTEM; FUEL; DISPENSE; FACILITY; DETECT; TYPE; LOCATE; FAULT; PRODUCE; PRINT; INSTRUCTION; OPERATE; FOLLOW  
Derwent Class: Q39; W05; X25  
International Patent Class (Main): B67D-005/32  
International Patent Class (Additional): G08B-025/14  
File Segment: EPI; EngPI

13/5/13 (Item 12 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009393728 \*\*Image available\*\*  
WPI Acc No: 1993-087195/199311  
XRPX Acc No: N93-066689

**Dispenser for vehicle fuel - includes gas detector responsive to fuel contained gas, controller operating w.r.t. sensor output and valve dispensing fuel w.r.t. received controller signal**

Patent Assignee: GILBARCO LTD (GILB-N)  
Inventor: BARTLETT J F; JENNINGS M L; SAXTON J E; DORMER J R;  
MASSINGBERD-MUNDY P D G

Number of Countries: 021 Number of Patents: 010  
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 532202	A2	19930317	EP 92307782	A	19920826	199311 B
GB 2259497	A	19930317	GB 9119605	A	19910913	199311
NO 9203515	A	19930315	NO 923515	A	19920910	199319
HU 62239	T	19930428	HU 922922	A	19920911	199322
FI 9204073	A	19930314	FI 924073	A	19920911	199324

EP 532202	A3	19930714	EP 92307782	A	19920826	199406
GB 2259497	B	19940622	GB 9119605	A	19910913	199422
US 5363988	A	19941115	US 92940243	A	19920908	199445
			US 9326452	A	19930303	
EP 532202	B1	19950607	EP 92307782	A	19920826	199527
DE 69202841	E	19950713	DE 602841	A	19920826	199533
			EP 92307782	A	19920826	

Priority Applications (No Type Date): GB 9119605 A 19910913

Cited Patents: No-SR.Pub; AT 313095; AU 4852272; EP 357513; EP 473818; US 4611729

# Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 532202	A2	E	9	B67D-005/58	
Designated States (Regional): AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
US 5363988	A		9	B67D-005/30	CIP of application US 92940243
EP 532202	B1	E	12	B67D-005/58	
Designated States (Regional): AT BE CH DE DK ES FR GR IE IT LI LU MC NL PT SE					
DE 69202841	E			B67D-005/58	Based on patent EP 532202
GB 2259497	A			B67D-005/34	
NO 9203515	A			B67D-005/34	
HU 62239	T			B67D-005/00	
FI 9204073	A			B67D-005/00	
EP 532202	A3			B67D-005/58	
GB 2259497	B			B67D-005/34	

## Abstract (Basic): EP 532202 A

The dispenser includes a gas detector (36) producing an electrical signal in dependence upon the presence of gas in fuel flowing through the detector, and processor (32) receiving the electrical signal and controlling the dispensing of fuel at least in part w.r.t. the received signal. A fuel separator (23) is also provided, includes an inlet receiving fuel, and two outlets. The first outlet (37) is positioned to receive a greater proportion of gas than the second outlet (25), and the gas detector receives fuel from the first outlet, and fuel for dispensing from the second outlet.

Fuel passing through the gas detector is recycled through the separator. Fuel from the second separator outlet passes through a meter (26) before being dispensed. After passing through the detector, fuel flows into a vented reservoir (39).

ADVANTAGE - May be used to reduce/prevent hunting, and has flexible control.

Dwg.4A/4

Title Terms: DISPENSE; VEHICLE; FUEL; GAS; DETECT; RESPOND; FUEL; CONTAIN; GAS; CONTROL; OPERATE; SENSE; OUTPUT; VALVE; DISPENSE; FUEL; RECEIVE; CONTROL; SIGNAL

Derwent Class: Q39; X25

International Patent Class (Main): B67D-005/30 ; B67D-005/34 ; B67D-005/58

International Patent Class (Additional): B67D-005/38 ; G01F-001/38; G01N-007/00

File Segment: EPI; EngPI

13/5/14 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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004495811

WPI Acc No: 1985-322689/198551

XRPX Acc No: N85-239577

**Improved fuel distribution pump control - is provided by magnetic switch in parallel with existing switch-off guaranteeing full delivery**

Patent Assignee: GOSKOMNEFTE PRODS (GOSK-R)  
Inventor: KRECHMER V Y A; MAZAEV M P; PUTILIN V V  
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
SU 1161456	A	19850615				198551 B

Priority Applications (No Type Date): SU 2993579 A 19801008

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
SU 1161456	A		2		

Abstract (Basic): SU 1161456 A

Appts. has pulse-count and local on-off control set on the pump column (1) and **remote** control desk (7) comprising electromagnetic drive mechanism (8), gearing (9) to reader (10) and automatic switch-off (11) of pump (12). **Sensor of fuel dispensed** (15) connects to summing device (16) and to mechanism (8).

Normal filling takes place through intermediate relay (14) controlled by pulse sensor (2) on the pump, and operating to magnetic starter (17) giving commands to pump motor (12). Owing to the operation of sensor (2) of counter (3) it is possible for drive mechanism (8) and switch-off device (11) to stop early, before all fuel is delivered. Auxiliary magnetic switch (18) is added to it in parallel, to prevent premature breaking of the circuit before the fill is complete.

USE/ADVANTAGE - For a fuel-metering installation. In aid of accuracy an addition is made of a magnetically-controlled contact in parallel with the automatic shut-off switch. Bul.22/15.6.85

Dwg.1/1

Title Terms: IMPROVE; FUEL; DISTRIBUTE; PUMP; CONTROL; MAGNETIC; SWITCH; PARALLEL; EXIST; SWITCH; GUARANTEE; FULL; DELIVER

Derwent Class: Q39; X25

International Patent Class (Additional): B67D-005/30

File Segment: EPI; EngPI

13/5/15 (Item 14 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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003255015

WPI Acc No: 1982-A9316J/198249

**Distributed data processing system for fluid dispensers - has central processing unit for monitoring microprocessors of fluid dispensers while allowing dispensers to operate independently**

Patent Assignee: TOKHEIM CORP (TOKH-N)

Inventor: LANGSTON E M; MALECKI R L; MOORE C W

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 4360877	A	19821123				198249 B

Priority Applications (No Type Date): US 80138357 A 19800408

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 4360877	A		35		

Abstract (Basic): US 4360877 A

The system comprises a digital readout device on each dispenser for displaying information relating to dispensed gallonage and associated cost. A number of **remote** terminals are provided, one for each fuel dispenser, controlling its operation and its digital read out device. A first power supply is operatively connected to each of the **remote** terminals. A CPU-console receives and transmits digital signals which address and control each of the **remote** terminals. A second power

supply is provided for enabling the CPU-console. Each **remote** terminal is operative in response to digital **signals** from its **fuel dispenser** as well as from the CPU-console.

The **remote** terminals are located adjacent the CPU-console and **remote** from the fuel dispensers whereby replacement of the CPU-console and each of the **remote** terminals may be accomplished without dismantling any of the fuel dispensers. Each **remote** terminal has a microcomputer capable of independent processing of dispensed gallonage and cost information of its respective dispenser whereby each **remote** terminal may operate even when the CPU-console is inoperative.

Title Terms: DISTRIBUTE; DATA; PROCESS; SYSTEM; FLUID; DISPENSE; CENTRAL; PROCESS; UNIT; MONITOR; MICROPROCESSOR; FLUID; DISPENSE; ALLOW; DISPENSE; OPERATE; INDEPENDENT

Derwent Class: T01; T05

International Patent Class (Additional): G06F-015/56

File Segment: EPI

File 348:EUROPEAN PATENTS 1978-2004/Feb W03

(c) 2004 European Patent Office

File 349:PCT FULLTEXT 1979-2002/UB=20040219,UT=20040212

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?ds

Set	Items	Description
S1	80	(FUEL OR PETROLEUM OR PETROL)() (DISPENS? OR FILL? ? OR FILLING? OR DISTRIBUT?) (3N) (SENSOR OR SENSORS OR SENSING OR DETECTOR? OR SIGNAL? ?)
S2	19	(ROBOTIC? OR AUTOMATE?) (3N) (FUEL OR PETROLEUM OR PETROL)() (DISPENS? OR FILL? ? OR FILLING? OR DISTRIBUT?)
S3	21367	(DETECT? OR IDENTIF?) (3N) (AUTO? ? OR AUTOMOBILE? OR AUTOMOTIVE? OR VEHICLE? OR TRUCK? ? OR MOTOR?) (VEHICLE? OR LORRY OR LORRIES OR CAR? ? OR FLEET? OR (AUTO OR MOTOR) () CAR? OR AUTOCAR? OR MOTORCAR? OR VAN? ?)
S4	1300183	(REMOTE OR DISTANT? OR SEPARATE? OR LOCATION? OR APART OR FAR() OFF OR FAR() AWAY OR OFF() SITE? OR OFFSITE? OR REMOVED)
S5	0	S5(5N) (RECEIPT? OR PRINT() OUT? OR ACCOUNTING?)
S6	0	AU=(DICKSON, T? OR DICKSON T ?)
S7	94	S1 OR S2
S8	21387	S3 OR ((FILL OR FILLS OR GASES OR FUELS) () UP) (3N) (AUTO? ? - OR AUTOMOBILE? OR AUTOMOTIVE? OR VEHICLE? OR TRUCK? ? OR MOTOR?) (VEHICLE? OR LORRY OR LORRIES OR CAR? ? OR FLEET? OR (AUTO OR MOTOR) () CAR? OR AUTOCAR? OR MOTORCAR? OR VAN)
S9	3	S7(S) S8
S10	3	S7(S) (RECEIPT? OR PRINT() OUT? OR ACCOUNTING?)
S11	3	S10 NOT S9

9/3,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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00909328

APPARATUS FOR DISPENSING FUEL AND DETECTING A VEHICLE HAVING A VAPOUR  
RECOVERY SYSTEM  
KRAFTSTOFFABGABEVORRICHTUNG MIT MITTELN ZUR ERKENNUNG EINES  
DAMPFRUCKGEWINNUNGSSYSTEMS EINES FAHRZEUGS  
APPAREIL DE DISTRIBUTION DE CARBURANT ET DE DETECTION D'UN VEHICULE EQUIPE  
D'UN SYSTEME DE RECUPERATION DES VAPEURS

PATENT ASSIGNEE:

Marconi Commerce Systems Inc., (570622), 7300 West Friendly Avenue P.O.  
Box 22087, Greensboro, North Carolina 27420, (US), (Proprietor  
designated states: all)

INVENTOR:

HARTSELL, Hal, C., 1060 Winwood Drive, Kernersville, NC 27284, (US)  
PAYNE, Edward, A., 204 Overman Street, Greensboro, NC 27410, (US)  
MILLER, Paul, D., 4675 Gallant Lane, Winston-Salem, NC 27101, (US)  
TUCKER, Mark, B., 8622 Bame Road, Colfax, NC 27235, (US)

LEGAL REPRESENTATIVE:

Fitchett, Stuart Paul et al (83742), Saunders & Dolleymore European  
Patent Attorneys 9 Rickmansworth Road, Watford WD18 0JU, (GB)

PATENT (CC, No, Kind, Date): EP 958235 A1 991124 (Basic)

EP 958235 B1 030205

WO 97044274 971127

APPLICATION (CC, No, Date): EP 97923206 970519; WO 97GB1374 970519

PRIORITY (CC, No, Date): US 649455 960517

DESIGNATED STATES: DE; FR; GB; IT

INTERNATIONAL PATENT CLASS: B67D-005/04

NOTE:

No A-document published by EPO

LANGUAGE (Publication,Procedural,Application): English; English; English

FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS B	(English)	200306	631
CLAIMS B	(German)	200306	622
CLAIMS B	(French)	200306	848
SPEC B	(English)	200306	3629
Total word count - document A			0
Total word count - document B			5730
Total word count - documents A + B			5730

...SPECIFICATION tank.

According to the second aspect the present invention provides  
apparatus for dispensing fuel and **detecting** a **vehicle** having a vapour  
recovery system comprising: a fuel dispenser configured to deliver fuel  
to a...

...fuelling operation and a vapour recovery controller; and a pressure  
sensor operatively associated with said **fuel dispenser** for **sensing**  
an increase in vacuum in said vapour recovery path due to a vapour  
recovery system...

9/3,K/2 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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01074418 \*\*Image available\*\*

VEHICLE FUELING MANAGEMENT SYSTEM  
SYSTEME DE GESTION DE REMPLISSAGE DE CARBURANT POUR VEHICULE

Patent Applicant/Assignee:

TOKHEIM CORPORATION, 1600 Wabash Avenue, Fort Wayne, IN 46803, US, US  
(Residence), US (Nationality), (For all designated states except: US)

Patent Applicant/Inventor:

PREWITT Arthur, 7320 North LaCholla #15403, Tucson, AZ 85741, US, US  
(Residence), US (Nationality), (Designated only for: US)

Patent and Priority Information (Country, Number, Date):

Patent: WO 2003104135 A1 20031218 (WO 03104135)  
Application: WO 2003IB2850 20030611 (PCT/WO IB0302850)  
Priority Application: US 2002388663 20020611

Designated States: CA MX US

(EP) AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LU MC NL PT RO SE  
SI SK TR

Publication Language: English

Filing Language: English

Fulltext Word Count: 6084

Fulltext Availability:

Claims

Claim

... coupling element;  
a data storage device attached to the vehicle;  
a communications assembly for transmitting **signals** between  
said **fuel dispenser** and said data storage device prior to  
activation of said pump means, said communications assembly...

...and a second communicating element associated with the vehicle,  
and said signals being representative of **vehicle identification**  
data, operator payment data, and refueling grade data;  
a processor assembly for receiving, processing, and sending  
the **signals** and controlling **fuel dispensing** activity in accordance  
with processing results;  
a data input device for receiving alternative operator  
5...

...fuel dispensing when a sealing  
relationship has been detected, and further, for sending a first  
**signal** to cease **fuel dispensing** and a second **signal** to indicate  
a seal failure to an operator when a sealing relationship has been  
broken...

9/3,K/3 (Item 2 from file: 349)

DIALOG(R) File 349:PCT FULLTEXT

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00403530 \*\*Image available\*\*

**APPARATUS FOR DISPENSING FUEL AND DETECTING A VEHICLE HAVING A VAPOUR  
RECOVERY SYSTEM**

**APPAREIL DE DISTRIBUTION DE CARBURANT ET DE DETECTION D'UN VEHICULE EQUIPE  
D'UN SYSTEME DE RECUPERATION DES VAPEURS**

Patent Applicant/Assignee:

GILBARCO LIMITED,

Inventor(s):

HARTSELL Hal C,  
PAYNE Edward A,  
MILLER Paul D,  
TUCKER Mark B,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9744274 A1 19971127  
Application: WO 97GB1374 19970519 (PCT/WO GB9701374)  
Priority Application: US 96649455 19960517

Designated States: CA MX AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE

Publication Language: English

Fulltext Word Count: 4598

Fulltext Availability:

Detailed Description  
Claims

Detailed Description

... to the second aspect the present invention provides apparatus for dispensing fuel 1 5 and **detecting** a **vehicle** having a vapour recovery system comprising: a fuel dispenser configured to deliver fuel to a... fuelling operation and a vapour recovery controller; and a pressure sensor operatively associated with said **fuel dispenser** for **sensing** an increase in vacuum in said vapour recovery path due to a vapour recovery system...

Claim

... a vehicle having a vapour recovery system is detected.

10 Apparatus for dispensing fuel and **detecting** a **vehicle** having a vapour recovery system comprising:  
a fuel dispenser configured to deliver fuel to a...

...fuelling operation and a vapour recovery controller; and  
a pressure sensor operatively associated with said **fuel dispenser** for **sensing** an increase in vacuum in said vapour recovery path due to a vapour recovery system...

11/3,K/1 (Item 1 from file: 348)  
DIALOG(R)File 348:EUROPEAN PATENTS  
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01372012

**A fuel dispensing system providing a transaction account to a customer**  
**Zapfeinrichtung mit Rechnungsstellung fur Kraftstoff**  
**Systeme de distribution de carburant fournissant un reçu**  
PATENT ASSIGNEE:

Marconi Commerce Systems Inc., (3013620), 7300 W. Friendly Avenue, P.O.  
Box 22087, Greensboro, NC 27420-2087, (US), (Applicant designated  
States: all)

INVENTOR:

Dickson, Timothy E., 1211 Hounslow Drive, Greensboro, NC 27410, (US)

LEGAL REPRESENTATIVE:

Fitchett, Stuart Paul et al (83742), Saunders & Dolleymore European  
Patent Attorneys 9 Rickmansworth Road, Watford WD18 0JU, (GB)

PATENT (CC, No, Kind, Date): EP 1167278 A1 020102 (Basic)

APPLICATION (CC, No, Date): EP 2001305428 010622;

PRIORITY (CC, No, Date): US 599712 000622

DESIGNATED STATES: DE; FR; GB; IT

EXTENDED DESIGNATED STATES: AL; LT; LV; MK; RO; SI

INTERNATIONAL PATENT CLASS: B67D-005/24; B67D-005/14; B67D-005/08

ABSTRACT WORD COUNT: 80

NOTE:

Figure number on first page: 4

LANGUAGE (Publication,Procedural,Application): English; English; English  
FULLTEXT AVAILABILITY:

Available Text	Language	Update	Word Count
CLAIMS A	(English)	200201	986
SPEC A	(English)	200201	4046
Total word count - document A			5032
Total word count - document B			0
Total word count - documents A + B			5032

...SPECIFICATION dispenser, without the need for any action by a  
salesperson or attendant. In fact, totally **automated fuel dispensing**  
parks, i.e., with no human operators, are known in the art.  
Currently undergoing research...

...development are a variety of systems for automating fuel dispensing.  
Sometimes, these systems employ a **robotic fuel dispensing** mechanism  
to dispense fuel into the customer's vehicle, obviating the need for  
manual actuation...

...pay for fuel that also includes and communicates the customer's grade  
selection to the **fuel dispenser**. However, fully **automated** fuel  
delivery systems may still need to perform certain interface functions  
with the customer such as delivery of a **receipt** or account of the  
fueling transaction, and thus may require some input and/or output...

...the fuel dispenser housing is particularly advantageous.

The invention may be particularly applicable to an **automated** robot  
**fuel dispenser** where the driver does not get out of his vehicle. The  
provision of a printed **receipt** is difficult requiring a bulky printer  
to be located very close to the driver's...

11/3,K/2 (Item 1 from file: 349)  
DIALOG(R)File 349:PCT FULLTEXT  
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00514848 \*\*Image available\*\*

**DISPENSER WITH RADIO FREQUENCY ON-BOARD VAPOR RECOVERY IDENTIFICATION**

**DISTRIBUTEUR AVEC SYSTEME EMBARQUE D'IDENTIFICATION DE RECUPERATION DE  
VAPEURS A FREQUENCE RADIOELECTRIQUE**

Patent Applicant/Assignee:

DRESSER INDUSTRIES INC,  
MCCALL Don C,  
TAYLOR Ken W,

Inventor(s):

MCCALL Don C,  
TAYLOR Ken W,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9946200 A1 19990916

Application: WO 99US4205 19990223 (PCT/WO US9904205)

Priority Application: US 9877801 19980312

Designated States: JP US AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT  
SE

Publication Language: English

Fulltext Word Count: 5612

Fulltext Availability:

Claims

Claim

... wherein if the control signal is not received, the disabling mechanism  
does not disable the **automated** process.

. A **fuel dispenser** comprising:

a vapor recovery system for recovering fuel vapors responsive to a fuel  
being  
dispensed...

...disabling mechanism for preventing the vapor recovery system from  
recovering fuel

vapors in response to **receipt** of a disable signal;

an antenna for detecting a radio frequency signal from a transmitter...

11/3,K/3 (Item 2 from file: 349)

DIALOG(R)File 349:PCT FULLTEXT

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00413519 \*\*Image available\*\*

**UNATTENDED AUTOMATED SYSTEM FOR SELLING AND DISPENSING MOTOR FUEL ACCEPTING  
A VARIETY OF PAYMENT METHODS**

**SYSTEME AUTOMATIQUE ET SANS SURVEILLANCE DE VENTE ET DE DISTRIBUTION DE  
CARBURANT, ACCEPTANT PLUSIEURS FORMES DE PAIEMENT**

Patent Applicant/Assignee:

VISTA MARKETING GROUP,

Inventor(s):

FURMAN D Ramsey,  
WILLIAMS James,

Patent and Priority Information (Country, Number, Date):

Patent: WO 9803980 A1 19980129

Application: WO 97US12747 19970716 (PCT/WO US9712747)

Priority Application: US 96685352 19960723

Designated States: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES  
FI GB GE GH HU IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN  
MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW  
GH KE LS MW SD SZ UG ZW AM AZ BY KG KZ MD RU TJ TM AT BE CH DE DK ES FI  
FR GB GR IE IT LU MC NL PT SE BF BJ CF CG CI CM GA GN ML MR NE SN TD TG

Publication Language: English

Fulltext Word Count: 9695

Fulltext Availability:

Detailed Description

Claims

Detailed Description

... which issued January 61 1976, discloses an automatic fuel dispenser which is actuated by the **receipt** of either a valid credit card or cash to establish a pre-established dispensing limit...

...build up credit for a defined quantity of fuel, The system calculates the quantity of **fuel dispensed** by **sensing** fluid pulses and computes the amount of change due the purchaser, if any, Coins are...fuel at a single time from a single motor fuel dispenser. Unattended service stations using **automated** motor **fuel dispensers** must therefore have a limiting feature to comply with such laws, Still further, in unattended service stations having **automated fuel dispensers** which accept both cash and credit or debit cards, it is desirable to have a...

#### Claim

... a fuel pump enabling signal, said fuel pump having means for determining the amount of **fuel dispensed** and generating a **signal** indicative of the quantity of fuel dispensed from said fuel pump; a customer console associated...

...the change dispensing means including a currency payout mechanism operable to pay out currency upon **receipt** of a currency dispensing signal from said console controller and a plurality of coin payout...

...being operable to payout a coin of preselected denomination from its associated coin supply upon **receipt** of a coin dispensing signal from said console controller; and, system control means operatively linking...